

quoniam factoris furdi latus R seu $q^3 + qqx - qxx - x^3$ divisores habet $q + x$, $q - x$, $q - x$ qui duarum sunt magnitudinum, rejicio divisorem unum magnitudinis utriusq; & per divisorem $q + x$ qui relinquitur multiplico factorem rationalem $qq - xx$. Et quoniam factum $q^3 + qqx - qxx - x^3$ æquale est lateri R, pono $m = 1$. & inde, cum π fit $\frac{1}{3}$, fit $\lambda - 1 = -\frac{1}{3}$. Ordinatam igitur reduco ad denominatorem $R^{\frac{1}{3}}$ & fit $Z^0 \times 3q^6 + 2q^5x + 8q^4xx + 8q^3x^3 - 7qqx^4 - 6qx^5 \times q^3 + qqx - qxx - x^3$. Unde est $a = 3q^6$. $b = 2q^5$ &c. $e = q^3$. $f = qq$ &c. $\theta - 1 = 0$. $\theta = 1 = \eta$. $\lambda = -\frac{1}{3}$. $r = 1$. $s = \frac{2}{3}$. $t = \frac{1}{3}$. $v = 0$. Et his in serie scriptis prodit area $\frac{3qqx + 3x^3}{\sqrt{\text{cub. } a^3 + 3ax - ax^2 - x^3}}$, terminis omnibus in serie tota post tertium evanescentibus.

PROP. VI. THEOR. IV.

Si Curvæ abscissa AB sit z , & scribantur R pro $e + fz^n + gz^{2n} + hz^{3n} + \&c.$ & S pro $k + lz^n + mz^{2n} + nz^{3n} + \&c.$ fit autem ordinatim applicata $z^{\theta-1}R^{\lambda-1}S^{\mu-1}$ in $a + bz^n + cz^{2n} + dz^{3n} + \&c.$ & si terminorum, $e, f, g, h, \&c.$ & $k, l, m, n, \&c.$ rectangula sint.

| | | | |
|----|----|----|--------|
| ek | fk | gk | hk &c. |
| el | fl | gl | hl &c. |
| em | fm | gm | hm &c. |
| en | fn | gn | hn &c. |

Et

Et si rectangulorum illorum coefficientes numerales sint respective

$$\frac{1}{\eta}\theta = r. \quad r + \lambda = s. \quad s + \lambda = t. \quad t + \lambda = v. \quad \&c.$$

$$r + \mu = s. \quad s + \mu = t. \quad t + \mu = v. \quad v + \mu = w. \quad \&c.$$

$$s + \mu = t. \quad t + \mu = v. \quad v + \mu = w. \quad w + \mu = x. \quad \&c.$$

$$t + \mu = v. \quad v + \mu = w. \quad w + \mu = x. \quad x + \mu = y. \quad \&c.$$

area Curvæ erit hæc

$$z^{\theta}R^{\lambda}S^{\mu} \text{ in } \frac{\frac{1}{\eta}a}{r+k} + \frac{\frac{1}{\eta}b - \frac{sfk}{s+e}A}{r-1, ek} z^n + \frac{\frac{1}{\eta}c - \frac{s-1, fk}{s-1, el}B - \frac{t gk}{t'em}A}{r-2, ek} z^{2n} + \frac{\frac{1}{\eta}d - \frac{s-2, fk}{s-2, el}C - \frac{t-1, gk}{t'-1, fl}B - \frac{v h k A}{v' g l}}{r+3, ek} z^{3n} + \&c.$$

Ubi A denotat termini primi coefficientem datam $\frac{1}{\eta}a$ cum signo suo $+$ vel $-$, B coefficientem datam secundi, C coefficientem datam tertii, & sic deinceps. Terminorum vero, $a, b, c, \&c.$ $k, l, m, \&c.$ unus vel plures deesse possunt. Demonstratur Propositio ad modum præcedentis, & quæ ibi notantur hic obtinent. Pergit autem series talium Propositionum in infinitum, & Progressio seriei manifesta est.

PROP.